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Letter to Editor

A note on ants and aphids

In September 2002, *Forum Formicidarum*, the newsletter of the Ants section of the Dutch Entomological Society (NEV), published a two page article of mine entitled (translated): “Cooperation or predation? An idea for an experiment with ants and aphids” (Roes, 2002). Ants sometimes collect honeydew excreted by aphids, but they also eat aphids. The idea was to provide ants with a substitute for honeydew, like sugar-water, with the prediction that they would then more often eat aphids.

I have just discovered that in 2001 Joachim Offenberg published the results of a similar though more subtle experiment. Offenberg (2001, p. 308) found among other things that “alternative sugar induced a more than eightfold increase in predation on aphids (...). Furthermore, all three measures of tending intensity—tending activity, tending ratio and exuviae per aphid—decreased when ants had an alternative sugar source (although the difference in exuviae/aphid was not significant)”.

In other words, adopting the terminology of my paper in JTB (Roes, 2007), with more ‘outside opportunities’ available to the ants, more costs were incurred by the aphids.

References

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